

PRODUCT INFORMATION



Histone H3K14Ac/K18Ac/K23Ac/K27Ac (1-30)-GGK-biotin (trifluoroacetate salt)

Item No. 27523

Synonyms: ARTKQTARKSTGG-K(Ac)-APR-K(Ac)-QLAT-K(Ac)-
AAR-K(Ac)-SAPGG-K(biotin),
Histone H3 (1-30) (Lys¹⁴ac/Lys¹⁸ac/Lys²³ac/Lys²⁷ac),
[Lys(Ac)14/18/23/27]-Histone H3 (1-30)-GGK(biotin)

MF: C₁₆₁H₂₈₂N₅₆O₄₈S • XCF₃COOH

FW: 3,802.4

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H—Ala—Arg—Thr—Lys—Gln—Thr—Ala—Arg—Lys—Ser—
Thr—Gly—Gly—Lys(Ac)—Ala—Pro—Arg—Lys(Ac)—Gln—Leu—
Ala—Thr—Lys(Ac)—Ala—Ala—Arg—Lys(Ac)—Ser—Ala—Pro—
Gly—Gly—Lys(Biotin)—OH
• XCF₃COOH

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Histone H3K14Ac/K18Ac/K23Ac/K27Ac (1-30)-GGK-biotin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K14Ac/K18Ac/K23Ac/K27Ac (1-30)-GGK-biotin (trifluoroacetate salt) in water. The solubility of histone H3K14Ac/K18Ac/K23Ac/K27Ac (1-30)-GGK-biotin (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Histone H3K14Ac/K18Ac/K23Ac/K27Ac (1-30)-GGK-biotin is a peptide fragment of histone H3 that corresponds to amino acid residues 2-31 of the human histone H3 sequence. It is acetylated at lysine 14, lysine 18, lysine 23, and lysine 27 and biotinylated via a C-terminal GGK linker. Acetylation of H3K14, H3K18, H3K23, or H3K27 is associated with transcriptional activation, and H3K14 acetylation is required for trimethylation of H3K4.¹⁻⁴

References

1. Kimura, H. Histone modifications for human epigenome analysis. *J. Hum. Genet.* **58(7)**, 439-445 (2013).
2. Keating, S.T., van Diepen, J.A., Risken, N.P., et al. Epigenetics in diabetic nephropathy, immunity and metabolism. *Diabetologia* **61(1)**, 6-20 (2018).
3. Nakanishi, S., Sanderson, B.W., Delventhal, K.M., et al. A comprehensive library of histone mutants identifies nucleosomal residues required for H3K4 methylation. *Nat. Struct. Mol. Biol.* **15(8)**, 881-888 (2008).
4. Barber, M.F., Michishita-Kioi, E., Xi, Y., et al. SIRT7 links H3K18 deacetylation to maintenance of oncogenic transformation. *Nature* **487(7405)**, 114-118 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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